

ABSTRACT OF THE DISCLOSURE

Methods and compositions are provided for treating vascular disease and modulating the inflammatory and immune processes using alkyl halides. The subject compounds are capable of inhibiting the proliferation of vascular smooth muscle cells, protecting the vasculature against oxidative stress and injury, modulating the activity of various immune system cells, inhibiting the production of pro-inflammatory cytokines and enhancing production of anti-inflammatory cytokines, thereby being effective in the treatment of conditions associated with adverse proliferative or inflammatory responses. Methods for extending the survival of an organ transplant and inhibiting chronic rejection in a recipient are also provided.